

# IDEAS AT Work

COMPUTERS/HILLEL SEGAL

## Japanese giants tout 'multiscan' monitors

Last year's buzzword was "EGA." It referred to IBM's Enhanced Graphics Adapter — the circuit board that drives the high-resolution color monitor available with IBM PCs and PC-compatible computers.

This year's equivalent word is "multiscan." It refers to several new monitors for PCs that have features purported to be even better than those driven by EGAs.

The key features of the various monitors are easy to understand and appreciate, even though it may sound complicated at first.

Here are the basic differences between the monitors, also known as CRT screens, used by most businesses on their personal computers:

✓ Monochrome is the most common type of monitor. These monitors, which come in either green and white, black and white, or amber and white, usually have a resolution of 9 dots by 14 dots for each character, which makes text very easy to read. The monitor that became the standard was the excellent green and white monitor introduced by IBM with the IBM PC in 1981. It's still a workhorse today, and costs about \$275. Competitive products from other manufacturers are available from \$150 to \$200.

✓ The Color/Graphics Adapter was a circuit board available with early PCs. The CGA, when inserted into the PC, allowed the operator to use a color monitor. However, each character was composed of only 8 dots by 8 dots, making the text more difficult to read. Nonetheless, many CGA boards and monitors were sold, and many continue to be sold by IBM, at a list price of \$920, and others. Although the CGA clones are relatively inexpensive — \$350 to \$500 for both the board and monitor — I don't recommend them.

✓ The EGA is a product designed to bring higher resolution color into the workplace. Introduced in 1984 by IBM, the EGA offers resolution of 8 dots by 14 dots in color, essentially matching the legibility of the 9 by 14 mono-

chrome monitors. The result is a beautiful display that you'll be happy to use all day long. It is priced too high — about \$1,700 for both the circuit board and color monitor — but it set a new standard for other companies to copy and offer at a lower price. PC's Ltd. of Austin,

Texas, (800) 426-5150, offers both for \$748; Qubie's of Camarillo, Calif., (800) 821-4479, has the lowest price I've seen: \$648.

✓ The Professional Graphics Controller is a high-end circuit board for use in engineering and design applications. IBM introduced it at the time of the EGA introduction.

The special board and monitor was priced over \$4,000, so it was no surprise that it was ignored by everyone. But it demonstrated that even higher-resolution displays were just over the horizon. Indeed, rumors have been flying for the past year that IBM's "about to be released" PC-II will support a higher resolution, lower cost monitor that exceeds the specifications of the EGA.

✓ Multiscan is the new type of monitor from NEC, JVC and Sony — all Japanese giants. Multiscan monitors are claimed to work with all types of computers and circuit boards — monochrome, CGA, EGA and PGC. The claimed advantage is that if you buy a multiscan monitor, you'll never have to buy another, even as technology changes. You would simply replace the circuit board. And, since the multiscan monitor alone costs "only" about \$900, not that much more than the EGA monitor from IBM, it is argued that it gives you more upward flexibility than buying a plain old EGA.

*The bottom line:* EGA-type monitors are now the best choice for almost all business users. I'm not so enthusiastic about multiscan monitors because right now they just emulate an EGA at a higher price. Until it's known what kind of monitor IBM will use on its new PC, and whether the extra capability of the multiscan monitors will have any value in that case, I'd stick to the EGA.



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